



**High-precision** Desktop Spectrophotometer

ChromaAgera EZ100

ChromaAgera EZ200

ChromaAgera EZ300



Dual light sources, capable of measuring UV, wide spectral range, long lifespan, and worry-free usage.

Three apertures to meet more application requirements.

360 - 780nm, wider spectral range for more accurate data.

45/0 optical structure, the measurement data is highly consistent with visual observation.

More industry indicators: traffic road signs, tomato chroma, citrus chroma, coffee chroma, etc.

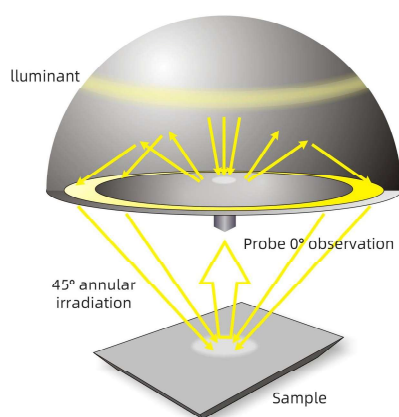
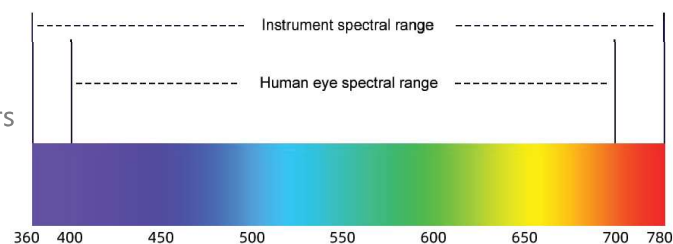


## I. Product Features

### ■ The industry-leading wavelength range:

**360 - 780 nm**

The wavelength range of conventional colorimeters is 400 - 700 nm. To achieve more accurate color measurement, the wavelength has been extended to 360 - 780 nm.



### ■ The innovative 45/0 optical structure enables the measurement data to be highly consistent with visual observation.

The revolutionary optical innovation can provide users with more accurate measurement results and bring more excellent color measurement experiences for various application fields.

- **Dual light sources, capable of measuring UV, wide spectral range, long lifespan, and worry-free usage.**

- Use xenon lamp and LED as the light sources.
- Provide light source illumination very close to that of the sunlight.
- Use ultraviolet light source to provide fluorescence measurement.



- **Three apertures can be switched to satisfy different applications.**

The 30mm aperture is better for measuring uneven samples such as plastic particles and powder to obtain more favorable data, while the 11mm aperture is more convenient for measuring small samples.



## ■ Surpass the convention and provide more chromaticity indicators

### Chromaticity of traffic road signs

The ChromaAgera EZ series is specially designed for the chromaticity measurement of traffic road signs, precisely measuring the warning colors of road signs. The instrument complies with the standards: GB/T18833-2012 and GB 2893-2008.

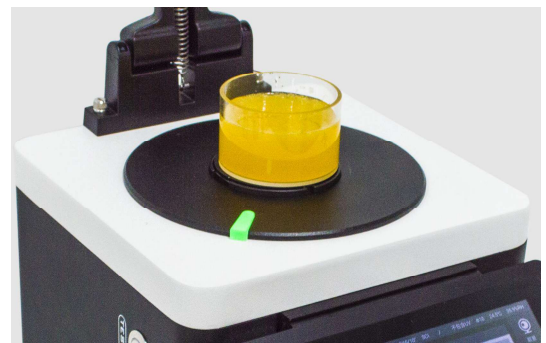


### Tomato chroma

The ChromaAgera EZ series mainly measures the red-yellow ratio ( $a/b$ ) of products such as tomato paste/tomato puree, ketchup, tomato sauce, tomato juice, and fresh tomatoes. The ChromaAgera EZ series is specially designed for the color of various processed tomato products and is the best choice for ketchup manufacturers.

### Citrus chroma

The ChromaAgera EZ series is specifically designed for precisely measuring the citrus color code, citrus redness and citrus yellowness index. It is mainly used in food inspection and evaluation to grade concentrated orange juice. But it can also be applied to the measurement of grapefruit juice and lemon juice at the same time.

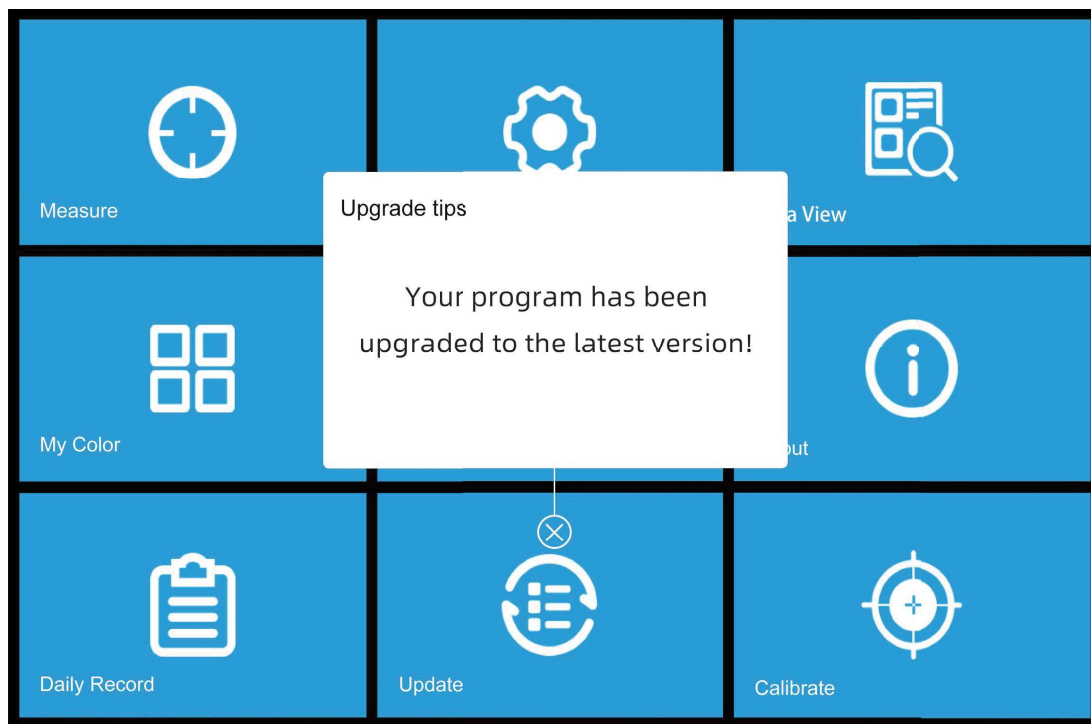


### Coffee chroma

The ChromaAgera EZ series is specifically manufactured to meet your needs in measuring the color of roasted coffee grounds. It can easily define the degree of roasting. The coffee chroma provided in the firmware includes: coffee color index, SCAA number and SCAA roasting classification.

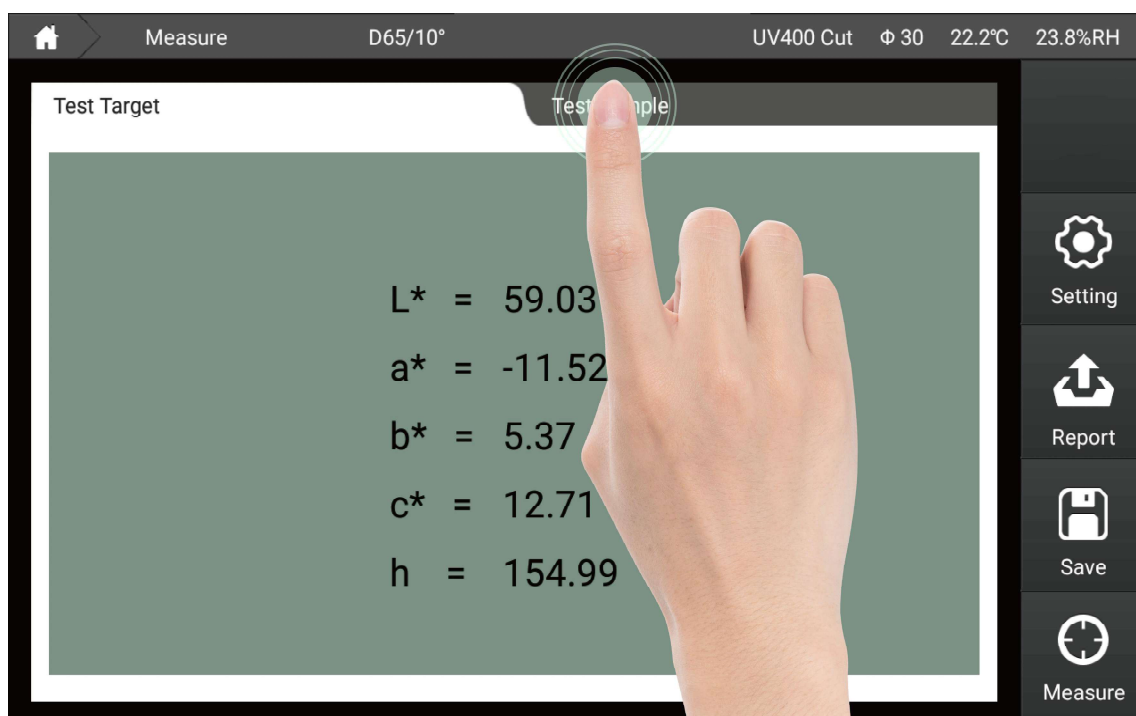
■ **It can be upgraded online to obtain the latest chromaticity indicators.**

The instrument supports online software update and new indicators. Users can upgrade to obtain them automatically.



■ **7-inch touchscreen operation, clearly display measurement data.**

The instrument adopts a 7-inch touchscreen and supports standalone and computer connection operations. The standalone unit can store more than 100,000 pieces of data.



## II. Technical Parameters

| Model                         | ChromaAgera EZ100   | ChromaAgera EZ200   | ChromaAgera EZ300             |
|-------------------------------|---|---------------------|-------------------------------|
| Measurement Conditions        | Reflection: 45/0 (45° annular illumination, 0° observation angle)<br>Compliant with standards: CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724/1, DIN5033 Teil7, JIS Z8722 Condition C, ASTM E1164   |                     |                               |
| Sensor                        | Silicon photodiode array  |                     |                               |
| Spectroscopic mode            | Concave grating   |                     |                               |
| wavelength range              | 400nm-780nm   | 360nm-780nm         |                               |
| wavelength interval           | 10nm  |                     |                               |
| Half-wave width               | 5nm   |                     |                               |
| Reflectance measurement range | 0 - 200%, resolution 0.01%  |                     |                               |
| Illumination light source     | LED   | LED + Xenon lamp    |                               |
| Aperture                      | LAV Φ18mm   | XLAVΦ30mm,LAV Φ18mm | XLAVΦ30mm,LAV Φ18mm,MAV Φ11mm |
| Repeatability ※               | ΔE*ab≤ 0.03   |                     | ΔE*ab ≤0.02                   |
| Inter instrument Agreement ※※ | ΔE*ab≤ 0.25   | ΔE*ab ≤0.2          |                               |
| Observer Angle                | 2° and 10°  |                     |                               |
| Language                      | Chinese, English, Traditional Chinese, Russian, Spanish, Portuguese, Japanese, Thai, Korean, German, French, Polish   |                     |                               |
| Observation light source      | A,B,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,U30,U35,DLF,NBF,TL83,TL84,ID50,ID65,LED-B1,LED-B2,LED-B3,LED-B4,LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2  |                     |                               |
| Display content               | Spectral data, spectral graph, chromaticity data, color difference data, color difference graph, pass/fail judgment, simulated color, color evaluation, color bias  |                     |                               |
| Color space                   | L*a*b,L*C*h,Hunter Lab,Yxy,XYZ,RGB  |                     |                               |
| Chromaticity index            | WI (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, Hunter, Taube, Berger Stensby), YI (ASTM D1925, ASTM E313-00, ASTM E313-73), Tint (ASTM E313-00), Metamerism index MilM, Color staining fastness, Color change fastness, ISO brightness, R457, A density, T density, E density, M density, Hiding power, Pigment strength, Strength, Traffic sign luminance factor, βxy |                     |                               |
| Food chromaticity※※※          | /   | have                |                               |
| Color difference formula      | ΔEab, ΔECH, ΔEuv, ΔEcmc, ΔE94, ΔE00, ΔEab(Hunter), 555 hue classification   |                     |                               |

|                                    |   |
|------------------------------------|---|
| Storage space                      | 8GB   |
| Screen size                        | 7-inch capacitive touch screen  |
| Operating system                   | Android   |
| Power                              | 24V/2.5A  |
| Operating temperature and humidity | 5 to 40°C, relative humidity 80% (below at 35°C) without condensation   |
| Storage temperature and humidity   | -20 to 45°C, relative humidity 80% (below at 35°C) without condensation   |
| Accessory                          | Power adapter, data cable, USB flash drive (with management software inside), black cavity, white board, green board  |
| Optional accessories               | Reflective cuvette holder, fiber test box, film clamp, European standard plug, American standard plug                 |
| Interface                          | RS-232、USB-A、USB-B  |
| Size                               | Length, width and height: 400 * 215 * 224   |
| Weight                             | 10.8kg  |
| Other                              | 1、The instrument can measure from the side and upwards.<br>2、Automatic temperature and humidity compensation function |

※The whiteboard is calibrated and then measured 30 times at 5-second intervals in the maximum aperture UV400 mode.

The standard deviation of the measurement results is obtained.

※※The average value of the measurement results of the 12 color plates of the BCRA series in the maximum aperture UV400 mode

※※※Food chromaticity includes: tomato chromaticity, citrus chromaticity, coffee chromaticity